



Basketball

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About Basketball

Basketball is played by teams of five players, with an official playing time of 40 minutes; game play is comprised of four quarters of 10 minutes each. However, with many stoppages throughout the game, players will often be on-court upwards of 60 minutes.

Basketball is a game characterised by jumping (to contest possession), and repeated short fast sprints and breaks. Thus, basketball players will utilise both aerobic and anaerobic energy systems. Players are also required to think tactically and display good technical ball skills for the duration of the game.

Depending on the level of competition, players will train anywhere from one session per week to one or two sessions per day.

The most noticeable physical characteristic of basketball players is their height, but they also tend to have low to medium body fat levels for speed and agility on the court.

Training diet

It is important to eat a diet that has adequate amounts of carbohydrate – this will ensure that muscle glycogen levels are topped up, thus fuelling those fast sprints! As with all sports, a balanced diet that is low in fat and high in vitamins and minerals (from plenty of fresh fruit and vegetables) will help to keep up energy levels, enabling basketballers to play at their best.

Fluid needs

In order to stay hydrated, fluids should be consumed before, during and after training and matches. However, body fluid losses will vary depending on training and competition times and venues.

If playing on an indoor air-conditioned court, players may find that they don't sweat as much as if they are playing on a poorly ventilated court, or outdoors in the summer heat. Hot playing conditions will result in noticeably high body fluid losses; however, players should also be aware that they can still lose significant amounts of body fluids when playing in air-conditioned venues. The trouble is that, due to the cool environment, players are unlikely to feel the need to replace these losses.

Thus, rather than relying on sweat rate or thirst to determine fluid needs, a more reliable method of assessing your body fluid losses is a weigh-in before and after the game/training. For each kilogram of body weight lost, encourage players to drink 1.5L of fluid – this can be either in the form of water or sports drink.

Eating before training/competition

The aim is to start any exercise session or competition well hydrated. This requires drinking regularly throughout the day leading up to training or competition. Encourage a drink with all meals and snacks. Immediately before the training or competition begins, players should aim to consume 200-600 ml of fluid. This not only helps with hydration, but also prepares the stomach for accepting fluids throughout the game.

The **pre-event/training meal** needs to provide fuel 3 to 4 hours prior to the game, so it needs to include some carbohydrate, a source of protein and make sure there are some fluids with the meal, too. As an individual player or a team as a whole, find strategies that work before a game. Sometimes it can be beneficial for the team to eat together for the pre-match meal. It can be a great way to boost team moral and renew focus on the game ahead. It also ensures and encourages all players to attend to their pre-game nutritional needs.

Some suitable pre-game meal ideas can include:

- Pasta with a low-fat tomato sauce
- Salad sandwiches or rolls
- Soup served with bread rolls
- Toast or crumpets or English muffins
- Baked potatoes with low-fat fillings
- Creamed rice
- Fruit or fruit salad

The **pre-event snack** should be eaten 1-2 hours prior to an event to provide fuel right through training or a game. It needs to be high in carbohydrate, low in fat and familiar, and above all, tried and tested in training.

Some suitable pre-game snack ideas include:

- Jam/honey & banana sandwich
- Toasted English muffin with a thick spread of your favourite topping
- Fruit or plain scone & jam
- Creamed rice & dried fruit
- Fruit cereal bars
- A bowl of cereal with low-fat milk

Or if solids don't sit well before a match, players could try:

- Liquid meal supplements (eg. Sustagen Sport®)
- Banana smoothie
- Juice or a sports drink

What should I eat during training/competition?

Indoor environments, coupled with high-intensity exercise can lead to large sweat losses, especially in larger players. Frequent breaks in game play however, such as substitutions, stoppages, quarter and half time breaks, provide the perfect opportunity to take in fluids. And while water is a must during training and for hydration during the day, sports drinks during a game may promote better performance. How? Because sports drinks not only deliver fluid, but they also deliver some carbohydrates to the brain and working muscles.

Sports drinks can also be more palatable than plain water, and larger volumes tend to be taken in than when drinking plain water alone. They also deliver some salts which can increase thirst (thus encouraging fluid intake) and help to replenish salts lost through sweat.

Remember that basketball is not only a game of high-intensity running, but it is also a sport that requires concentration, fast decision-making and ball-handling skills. These skills (especially the latter three) are affected by dehydration *and* low blood glucose (energy) levels. Sports drinks are ideal in this sport as a means of topping up energy levels during the game and/or training, as well as encouraging players to drink more.

What about recovery?

There are three golden rules in recovery nutrition:

- **Refuel** muscle glycogen (carbohydrate stores)
- **Repair** muscle tissue (for maintenance & development)
- **Rehydrate** – replace fluids and salts lost through sweat

This means that recovery meals and snacks must contain carbohydrate (fuel), some protein (for muscle repair and/or gains) and plenty of fluids to replace sweat losses.

The first step is to have a **recovery snack** (containing all of the above) within 30 minutes of finishing a game or training session.

Some snack suggestions include:

- A vegemite & cheese sandwich + fluids
- Fruit salad + yoghurt + fluids
- A salad roll/wrap + fluids
- Sustagen Sport®
- Banana/fruit smoothie
- Soup-in-a-cup + bread roll + slice cheese

Be prepared – players should have these snacks ready to go so they don't rely on the venue to provide a suitable snack (because pies and lollies are not!).

A **recovery meal** must follow the recovery snack within 3 to 4 hours of finishing exercise.

Some suggestions for a recovery meal include:

- Baked beans/spaghetti on toast
- Pasta with a low-fat bolognese sauce
- Rice with a low-fat tomato-based chicken curry
- Thai noodle salad with lean beef + fluids
- Grilled chicken breast with potato + veggies
- Jacket potato with low-fat fillings

Rehydration is vital after exercise and it is important to monitor fluid losses after a game or training session. A weight before and after exercise provides a measure of fluid lost. Assuming that 1kg of body weight lost is equivalent to 1L of fluid, for every litre of fluid lost, it needs to be replaced by 1.5 litres in recovery.

Example: Pre-game weight (**80kg**) – post-game weight (**78kg**) = 2kg BW lost = **2L fluid lost**

So, **2L fluid lost** x **1.5L** = 3L fluid to be taken in over a few hours after exercise, or if a game finishes late at night, some fluid after the game and in the morning after. This will help to prevent multiple pee stops at night and allow a restful night's sleep (also important in recovery!).

Other nutrition issues

Alcohol: If players are going to drink, do so in moderation. Excess consumption can impair recovery and rehydration and can indirectly (or directly) impact on individual performance. Make sure that recovery and rehydration goals are met before consuming alcohol.

Be organised! Contracts often involve young players to move out of home before domestic and cooking skills can be developed. So planning meals ahead, a roster-system if rooming in with mates and some ready-to-go meals and snacks for the late nights can help to meet nutrition goals. If cooking is means fried eggs on toast every night, a sports dietitian can help out with shopping and cooking classes.

Iron levels: Some players may have problems with low iron levels, especially females with low iron intakes. Iron levels should be checked regularly during heavy training or if fatigue levels are unusual. See our fact sheet on [Iron Deficiency in Athletes](#) and speak to a Sports Dietitian on how to increase iron in your diet.

How to get involved

For more information on your local club, try visiting:

- <http://www.basketball.net.au/>
- <http://www.nbl.com.au/>

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